



Tab 22

Report On High School Graduates Performance

Coordinating Board for Higher Education

March 4, 2020

BACKGROUND

The Coordinating Board for Higher Education's Missouri High School Graduates Performance Report tracks Missouri's public high school graduates entering the state's public two- and four-year degree-granting postsecondary institutions as first-time, full-time, undergraduate, degree-seeking students in the fall semester following their high school graduation. The annual report, which was first issued in 1996, provides information to secondary and postsecondary stakeholders regarding student preparation, persistence, and completion.

The law that authorizes the CBHE to prepare the annual report (§ 173.750, RSMo) describes the report's contents, which must include "grade point averages after the initial college year...; the percentage of students returning to college after the first and second half of the initial college year, or after each trimester of the initial college year; the percentage of students taking noncollege level classes in basic academic courses during the first college year, or remedial courses in basic academic subjects of English, mathematics, or reading; and other such data as determined by rule and regulation of the coordinating board for higher education."

CURRENT STATUS

Overall enrollment in remediation among this cohort continues its multi-year decline, as changing demographics impact high school enrollment, but remediation also continues its decline. Fall-to-fall persistence has been generally stable in recent years. 50.7 percent of incoming students in fall 2013 had earned a degree or certificate from a public two- or four-year institution by spring 2019. This is an increase over 2012, and tracks with broader increases in graduation rates across the state.

Enrollment and Preparation

This year's report provides data about postsecondary enrollment and preparation of the public high school graduating class of 2019.

Public institutions continue to struggle with demographic trends among Missouri's high school-age population. Total enrollment of same-year Missouri public high school graduates in Missouri public institutions decreased significantly by 5.5 percent from 22,067 first-time, full-time, degree-seeking undergraduates in 2018 to 20,847 in 2019. 9,847 students (47.2 percent) attended two-year institutions, and 10,950 students (52.5 percent) attended four-year institutions. Enrollment of first-time, full-time, degree-seeking students decreased by 5.3 percent at public two-year institutions from the previous year and decreased at public four-year institutions by 6.1 percent. Detailed summary tables are included in the attachment to this item.

This report provides the state's benchmark measurement of enrollment in remedial coursework, which also continues to decline. In 2019, the DHEWD worked with the institutions to continue to encourage the development of multiple math pathways and multiple measures for remedial and co-requisite placement, to ensure that students are placed into college-level courses, especially mathematics, whenever possible, but still provided additional support where needed. Math pathways also ensure that STEM-focused math courses are not an unnecessary obstacle to students entering other fields.

In fall 2019, the DHEWD also held its first equity summit, which brought together educators, business and community leaders to identify barriers and discuss solutions to strengthening access to higher education for minority and other disadvantaged students. This will certainly continue to be a timely conversation given enrollment declines among first-time high school graduates, including a 9.5 percent one-year decline among African-Americans.

Remedial Participation of Recent Missouri Public High School Graduates in Public Postsecondary Institutions					
	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019
Total	28.2%	26.8%	22.8%	21.5%	19.8%
Math	23.8%	21.5%	17.6%	17.5%	15.9%
English	10.0%	11.4%	10.1%	8.2%	7.2%
Reading	6.1%	6.6%	6.0%	5.2%	4.4%

Other Trends in Enrollment and Preparation

- Overall enrollment in remedial coursework has declined each year since fall 2013, and enrollment in remedial math has declined each year since fall 2012. Enrollments in remedial English/writing and reading have declined since fall 2016.
- Overall enrollment in remediation at open admissions institutions has declined from 45.2 percent in fall 2015 to 30.7 percent in fall 2019, and from 22.5 percent in fall 2015 to 14.0 percent in fall 2019 at moderately selective institutions. Enrollment in remediation at moderately selective institutions did increase from 12.1 percent in fall 2018.
- Overall remedial enrollment and enrollment in all content areas (math, English, and reading) continues to decrease among African-American students, although total enrollment of African-American and Caucasian students declined from fall 2018 to 2019.
- Hispanic students now comprise 5.6 percent of the total cohort, compared to 7.8 percent for African Americans. Students of Other or Unreported Race / Ethnicity (including multi-racial students) were 12.8 percent of the total, compared to 6.2 percent in fall 2009.

Performance and Retention in College

The High School Graduates Performance Report also tracks several measures of student success and persistence in Missouri's public postsecondary sector. This year's report provides data about performance and retention in college for the public high school graduating class of 2018. Detailed summary tables are included in the attachment to this item. Among the more significant findings for this cohort are:

- Fall-to-fall retention has been generally stable in recent years, fluctuating from 76.9 percent for the fall 2016 cohort to 76.4 percent in 2017, and back to 76.8 percent for 2018. Fall-to-fall retention rates ranged from 65.5 percent for African-Americans to 89.8 percent for Asian-Pacific Islander students.
- On average, this cohort completed 33.2 credits by the end of the spring 2019 term with a 2.92 grade point average. Asian/Pacific Islanders completed 35.6 credits with a 3.08 GPA, African-Americans completed 21.7 credits with a 2.40 GPA, and Caucasians completed 34.7 credits with a 3.00 GPA. Females completed 34.0 credits with a 3.01 GPA, compared to males, who completed 32.1 credits with a 2.80 GPA. Credits completed include dual/advanced credit completed prior to enrollment.
- Students at two-year institutions (open admissions) completed 27.2 credits through spring 2019 with a 2.75 GPA. Students at four-year institutions, including open admissions and moderately selective, selective, and highly selective institutions completed 37.8 credits through spring 2019 with a 3.06 GPA.

Degree Completion

The timely completion of a certificate or degree is an additional indication of how well prepared Missouri's high school graduates are for college-level work. Detailed tables in the attachment to this item show the six-year graduation rate of students beginning college in the fall of 2013. The findings include:

- 50.7 percent of incoming public Missouri high school students who entered as a first-time, full-time degree-seeking student in fall 2013 had earned a two- or four-year degree from a public Missouri college or university by spring 2019. This is an increase over the 2012 cohort (49.4 percent). This rate does not account for transfer or completion from an independent or out-of-state institution.
- 37.5 percent had earned a bachelor's degree, 17.8 percent earned an associate's degree, and 2.4 percent earned a graduate or professional degree within six years. All percentages equal or improve upon the fall 2012 entering cohort, which tracks with increasing graduation rates seen among the broader population. Some students earned more than one degree, and are counted here more than once.
- Racial ethnic disparities do persist; 58.8 percent of Asian / Pacific Islanders and 54.3 percent of Caucasians earned a degree or certificate within six years, as did 27.9 percent of African-Americans and 44.6 percent of Hispanics.

Next Steps

DHEWD staff will continue to work with partners across several fronts to encourage increased enrollment and persistence among recent high school graduates. Equity work will continue in 2020 with additional research and problem-solving around student completion and success. The DHEWD is also planning specific initiatives related to encouraging FAFSA filing, which is intended to spur enrollment and persistence by increasing awareness of and access to financial aid.

From a research perspective, DHEWD staff will present a report on college and career readiness to the CBHE in June, which will provide additional insight into student enrollment in and impact of remedial and corequisite coursework. This report will leverage additional data on course-taking and completion now available to the department, as well as reporting resulting from collaboration with the Charles A. Dana Center at the University of Texas at Austin, which also focuses on student success in math and science. DHEWD staff also continue to work with partners to encourage the building of longitudinal data systems which will leverage secondary, postsecondary and workforce data to enable greater understanding of pathways and barriers to student success.

RECOMMENDATION

This is an information item only.

ATTACHMENT

- Enrollment and Preparation, Performance and Retention in College, and Degree Completion Tables

Tab 22 Attachment

Enrollment and Preparation, Performance and Retention in College, and Degree Completion Tables

Enrollment and Preparation

Table 1: Recent Public Missouri High School Graduate Enrollment by Sector, Gender, and Race/Ethnicity, 2009 to 2018													
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10-Year % Change	1-Year % Change
Overall Enrollment	22,228	23,948	23,742	21,018	22,034	22,443	21,453	21,833	22,160	22,067	20,847	-6.2%	-5.5%
Two-Year	10,504	11,225	11,279	9,132	10,393	10,610	9,303	9,769	10,423	10,401	9,847	-6.3%	-5.3%
	47.3%	46.9%	47.5%	43.4%	47.2%	47.3%	43.4%	44.7%	47.0%	47.1%	47.2%		
Four Year	11,724	12,723	12,463	11,861	11,641	11,833	12,150	12,064	11,737	11,666	10,950	-6.6%	-6.1%
	52.7%	53.1%	52.5%	56.4%	52.8%	52.7%	56.6%	55.3%	53.0%	52.9%	52.5%		
Women	12,013	13,067	12,997	11,596	12,175	12,342	11,816	11,983	12,275	12,169	11,674	-2.8%	-4.1%
	54.0%	54.6%	54.7%	55.2%	55.3%	55.0%	55.1%	54.9%	55.4%	55.1%	56.0%		
Men	10,211	10,863	10,733	9,397	9,844	10,092	9,628	9,840	9,872	9,881	9,159	-10.3%	-7.3%
	45.9%	45.4%	45.2%	44.7%	44.7%	45.0%	44.9%	45.1%	44.5%	44.8%	43.9%		
African American	2,269	2,433	2,553	1,525	2,209	2,065	2,010	2,138	1,870	1,794	1,623	-28.5%	-9.5%
	10.2%	10.2%	10.8%	7.3%	10.0%	9.2%	9.4%	9.8%	8.4%	8.1%	7.8%		
Caucasian	17,758	18,381	18,011	14,289	17,215	17,071	16,792	17,007	16,097	15,907	14,900	-16.1%	-6.3%
	79.9%	76.8%	75.9%	68.0%	78.1%	76.1%	78.3%	77.9%	72.6%	72.1%	71.5%		
Hispanic	486	374	343	275	470	620	846	885	1019	1,074	1,169	140.5%	8.8%
	2.2%	1.6%	1.4%	1.3%	2.1%	2.8%	3.9%	4.1%	4.6%	4.9%	5.6%		
Asian / Pacific Islander	347	408	395	333	486	537	497	489	449	456	481	38.6%	5.5%
	1.6%	1.7%	1.7%	1.6%	2.2%	2.4%	2.3%	2.2%	2.0%	2.1%	2.3%		
Other	1,368	2,352	2,440	4,596	1,654	2,150	1,308	1,314	2,725	2,836	2,674	95.5%	-5.7%
	6.2%	9.8%	10.3%	21.9%	7.5%	9.6%	6.1%	6.0%	12.3%	12.9%	12.8%		

Table 2: Recent Missouri Public High School Graduate Enrollment in Remediation by Institutional Admissions Selectivity; 2015 to 2019

	2015	2016	2017	2018	2019
Selective	9.6%	9.4%	8.8%	7.6%	6.3%
Math	8.7%	8.8%	8.3%	7.0%	5.7%
English	1.4%	1.1%	1.1%	1.2%	1.1%
Reading	-	-	-	-	-
Mod Selective	22.5%	19.7%	19.4%	12.1%	14.0%
Math	15.5%	11.7%	12.1%	10.1%	9.8%
English	10.3%	10.2%	10.3%	3.8%	6.2%
Reading	0.5%	0.5%	0.2%	-	0.5%
Open	45.2%	42.2%	33.5%	33.4%	30.7%
Math	38.9%	34.5%	25.8%	26.7%	24.7%
English	16.7%	19.2%	15.8%	14.0%	11.6%
Reading	12.8%	13.4%	11.6%	10.0%	8.4%

Source: Enhanced Missouri Achievement Study (EMSAS)

Table 3: Recent Missouri Public High School Graduate Enrollment in Remediation by Gender; 2015 to 2019

	2015	2016	2017	2018	2019
Women	29.9%	28.3%	24.5%	22.8%	21.3%
Math	25.9%	23.5%	19.5%	18.9%	17.8%
English	9.9%	11.6%	10.3%	8.2%	7.3%
Reading	6.4%	7.0%	6.4%	5.7%	4.6%
Men	26.1%	24.9%	20.7%	19.8%	17.9%
Math	21.2%	19.0%	15.1%	15.8%	13.5%
English	10.2%	11.2%	9.8%	8.1%	7.2%
Reading	5.8%	6.1%	5.4%	4.6%	4.3%

Source: Enhanced Missouri Achievement Study (EMSAS)

Table 4: Recent Missouri Public High School Graduate Enrollment in Remediation by Race / Ethnicity; 2015 to 2019

	2015	2016	2017	2018	2019
African-American	47.0%	52.6%	46.0%	38.2%	36.2%
Math	40.4%	43.1%	35.4%	30.8%	27.9%
English	23.8%	32.6%	28.1%	23.4%	18.2%
Reading	18.3%	23.6%	19.3%	17.1%	13.8%
Caucasian	25.8%	23.3%	18.8%	16.5%	15.2%
Math	21.7%	18.7%	14.8%	13.3%	12.0%
English	8.3%	8.5%	6.7%	6.0%	5.6%
Reading	4.8%	4.6%	3.2%	2.4%	1.9%
Hispanic	32.4%	28.5%	27.2%	30.1%	27.8%
Math	26.1%	22.4%	20.6%	24.5%	22.2%
English	13.2%	11.8%	13.1%	11.4%	10.5%
Reading	5.7%	6.0%	8.9%	8.9%	7.8%
Asian / Pacific Islander	20.3%	20.7%	14.3%	11.8%	11.6%
Math	16.5%	14.3%	10.5%	9.9%	9.4%
English	7.4%	11.5%	6.0%	5.9%	5.4%
Reading	5.6%	6.5%	4.0%	2.6%	3.1%
Other / Unknown	30.5%	31.0%	30.1%	36.9%	33.8%
Math	26.2%	25.0%	21.2%	31.3%	29.2%
English	9.7%	13.9%	16.9%	9.8%	8.3%
Reading	5.4%	6.7%	11.8%	12.3%	11.5%

Source: Enhanced Missouri Achievement Study (EMSAS)

Performance and Retention in College

Table 5: Recent Missouri Public High School Graduate Retention by Gender and Race/Ethnicity; Fall 2018 - Fall 2019								
	Students	Completed Fall 2018	Avg. Fall 2018 GPA	Avg. Credits Completed (Fall 2018)	Completed Spring 2019	Avg. Spring 2019 GPA	Avg. Credits Completed (Spring 2019)	Enrolled Fall 2019
Female	12,169	98.0%	2.98	21.3	88.2%	3.01	34.0	78.8%
African American	1,178	97.3%	2.51	11.9	83.7%	2.51	22.2	69.5%
Caucasian	9,345	98.0%	3.05	22.8	88.7%	3.09	35.7	80.1%
Hispanic	601	99.1%	2.81	18.8	90.0%	2.82	31.5	78.0%
Asian / Pacific Islander	257	99.6%	3.24	24.3	96.1%	3.20	37.0	91.4%
Other/Unknown	788	97.7%	2.80	18.8	85.4%	2.85	30.9	73.8%
Male	9,881	98.0%	2.73	19.4	85.1%	2.80	32.1	74.4%
African American	809	97.9%	2.18	11.3	79.7%	2.21	20.8	59.5%
Caucasian	7,676	98.0%	2.81	20.4	85.5%	2.88	33.5	75.9%
Hispanic	472	98.0%	2.50	17.3	80.9%	2.62	29.7	71.1%
Asian / Pacific Islander	232	98.7%	2.89	20.9	91.3%	2.92	34.0	87.9%
Other/Unknown	692	97.9%	2.59	17.9	83.9%	2.69	29.9	72.4%
Total	22,067	98.1%	2.87	20.5	86.8%	2.92	33.2	76.9%
African American	1987	97.6%	2.38	11.7	82.1%	2.40	21.7	65.5%
Caucasian	17,036	98.1%	2.95	21.8	87.4%	3.00	34.7	78.3%
Hispanic	1074	98.7%	2.68	18.2	86.0%	2.74	30.8	75.1%
Asian / Pacific Islander	489	99.2%	3.08	22.7	93.9%	3.08	35.6	89.8%
Other/Unknown	1481	97.8%	2.71	18.4	84.7%	2.78	30.5	73.1%

Source: Enhanced Missouri Achievement Study (EMSAS)

Table 6: Recent Missouri Public High School Graduate Retention by Sector and Race/Ethnicity; Fall 2018- Fall 2019								
	Students	Completed Fall 2018	Avg. Fall 2018 GPA	Avg. Credits Completed (Fall 2018)	Completed Spring 2019	Avg. Spring 2019 GPA	Avg. Credits Completed (Spring 2019)	Enrolled Fall 2019
Public 2Y	10,401	97.2%	2.66	16.5	80.7%	2.75	27.2	67.0%
African American	894	96.9%	2.25	7.9	77.2%	2.26	15.1	56.5%
Caucasian	8,060	97.3%	2.74	17.7	81.2%	2.83	28.7	68.3%
Hispanic	555	98.0%	2.45	15.0	80.9%	2.60	26.2	67.4%
Asian / Pacific Islander	156	98.1%	2.79	15.7	89.1%	2.85	25.8	83.3%
Other/Unknown	736	96.5%	2.47	15.5	77.3%	2.62	25.6	62.4%
Public 4Y	11,666	98.8%	3.05	23.9	92.3%	3.06	37.8	85.7%
African American	1093	98.2%	2.49	14.7	86.1%	2.50	26.6	72.8%
Caucasian	8,976	98.8%	3.13	25.4	93.0%	3.14	39.4	87.2%
Hispanic	519	99.4%	2.92	21.5	91.5%	2.87	35.1	83.2%
Asian / Pacific Islander	333	99.7%	3.21	26.0	96.1%	3.18	39.9	92.8%
Other/Unknown	745	99.2%	2.93	21.2	92.0%	2.91	34.6	83.8%

Source: Enhanced Missouri Achievement Study (EMSAS)

Degree Completion

**Degree Completion Table 7: Recent Missouri Public High School Graduate
Six-Year Completion Rate by Gender and Race/Ethnicity; Fall 2013 through Spring 2019**

	Students	% Completed Associate's	% Completed at Least Bachelor's	% Completed Graduate/Professional	Total Completions
Female	12,169	19.4%	38.2%	2.7%	52.8%
African American	1,331	9%	23%	1.0%	30%
Caucasian	9,435	21.0%	40.9%	3.1%	56.6%
Hispanic	269	22.7%	27.5%	1.5%	44.2%
Asian / Pacific Islander	239	12.6%	55.2%	5.9%	65.3%
Other/Unknown	895	19.7%	30.6%	1.5%	45.1%
Male	9,835	15.7%	36.7%	2.0%	48.1%
African American	874	8.0%	17.7%	0.8%	24.0%
Caucasian	7,762	16.8%	39.6%	2.2%	51.6%
Hispanic	199	21.1%	29.6%	0.5%	45.2%
Asian / Pacific Islander	246	13.8%	41.1%	3.3%	52.4%
Other/Unknown	754	12.6%	28.9%	1.9%	39.0%
Total	22,019	17.8%	37.5%	2.4%	50.7%
African American	2,208	8.6%	21.1%	0.8%	27.9%
Caucasian	17,206	19.1%	40.3%	2.7%	54.3%
Hispanic	469	22.0%	28.4%	1.1%	44.6%
Asian / Pacific Islander	485	13.2%	48.0%	4.5%	58.8%
Other/Unknown	1,651	16.4%	29.9%	1.6%	42.3%

Source: Enhanced Missouri Student Achievement Study (EMSAS)

Table 8: Recent Missouri Public High School Graduate Six-Year Completion Rate by Institutional Admissions Selectivity; Fall 2013 through Spring 2019

	Students	% Completed Associate's	% Completed at Least Bachelor's	% Completed Graduate/Professional	Total Completions
Highly Selective	820	2.9%	81.5%	11.8%	83.7%
Selective	6,617	3.8%	64.7%	4.7%	68.0%
Moderately Selective	3,394	5.3%	51.4%	2.3%	54.6%
Open	11,188	30.9%	14.0%	0.4%	36.8%

Source: Enhanced Missouri Student Achievement Study (EMSAS)